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## ABSTRACT OF THE DISCLOSURE

A GigaMatrix plate for holding a large number of small-volume fluid samples includes a base for supporting a plurality of substantially parallel, elongated capillary tubes. Each tube defines a lumen that extends through the base, and each lumen has an aspect ratio greater than about 5:1. Dimensionally, each lumen has an inner diameter that is less than approximately five hundred microns and it has a length greater than about five millimeters. Further, each tube acts to optically distinguish light that is directed toward it from the sample whenever the sample fluoresces inside the tube lumen. Also, however, light from the sample that is directed axially through the tube is emitted therefrom for optical detection of the tube and the sample therein.

PATENT: 11335.2